

ABSTRACT

A device for changing the control times of gas-exchange valves in an internal combustion engine is provided, which includes a drive wheel (2) in driven connection with the crankshaft and a vane rotor (3) fixed with the camshaft. The drive wheel (2) has a hollow space, which is formed by a hollow cylindrical peripheral wall (4) and two lateral walls (5, 6), in which at least one hydraulic work chamber (9) is formed by at least two radial limit walls (7, 8), which is divided by at least one vane (11) into an A pressure chamber (12) and a B pressure chamber (13). The vane rotor (3) can be coupled mechanically with the drive wheel (2) by a separate locking element (14), that can be moved into a locked position within a receptacle (19) in the lateral walls (5) of the drive wheel (2). The receptacle (19) is connected hydraulically to the A pressure chamber (12) via a pressure medium supply groove (18) provided in an inner surface of the lateral wall (5), so that upon pressurization of the A pressure chamber (12), the locking element (14) can move hydraulically into an unlocked position in the rotor hub (10) of the vane rotor (3). According to the invention, a local stop (20) is arranged within the pressure medium supply groove (18) in the inner surface of the lateral wall (5), through which a pressure medium supply to the receptacle (19) of the locking element (14) is possible only through a bypass (21) when the vane rotor (3) is in the base position.